

Contact: Joan Racki

**REGISTER OF UNIVERSITY OF IOWA**  
**CAPITAL IMPROVEMENT BUSINESS TRANSACTIONS**

**Actions Requested:** Consider recommending approval of:

1. The following actions for the **College of Public Health Building – Fit Out Fifth Floor for Informatics** project, a major capital project as defined by Board policy:
  - a. Acknowledge receipt of the University's initial submission of information to address the Board's capital project evaluation criteria (see Attachment A);
  - b. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration; and
  - c. Authorize permission to proceed with project planning, including the design professional selection process.
2. Authorize permission to proceed, including the selection of Shive-Hattery as the design professional, for the **Steam Utility Enterprise Systems - Replace Riverside Drive / Grand Avenue Steam Distribution System – Phase 1** project.
3. The following actions for the **UIHC Chronic Pain Clinic Relocation and Breast Imaging Center Relocations – 4 PFP** project, a major capital project as defined by Board policy:
  - a. Acknowledge receipt of the University's final submission of information to address the Board's capital project evaluation criteria (see Attachment B);
  - b. Accept the Board Office recommendation that the project meets the necessary criteria for Board consideration; and
  - c. Approve the schematic design, and project description and budget (\$4,600,000), with the understanding that approval will constitute final Board approval and authorization to proceed with construction.
4. A revised project budget (\$2,700,000) for the **UIHC Waterproofing Beneath John Pappajohn Pavilion Exterior Playcourt** project.

**Executive Summary:**

The University requests permission to proceed with project planning for the **College of Public Health Building - Fit Out Fifth Floor for Informatics** project, which would fit out approximately 12,000 gross square feet of shelled space on the fifth floor of the College of Public Health Building. The space would serve as the administrative and intellectual home for the major multidisciplinary initiative announced in November 2013, designed to establish the University as a national center of excellence in the rapidly evolving field of informatics. The project would include: an Informatics Departmental office; College of Public Health office space; faculty offices; collaboration / meeting space; dry lab and computer work stations for data analysis; and associated support spaces. The estimated project cost of \$3 million - \$4 million would be funded by Treasurer's Temporary Investment Income and sponsored research indirect cost recoveries. A map showing the location of the College of Public Health facility is included as Attachment C.

The University requests permission to proceed with project planning and the selection of Shive-Hattery as the design professional for the **Steam Utility Enterprise Systems - Replace Riverside Drive / Grand Avenue Steam Distribution System – Phase 1** project which would repair the existing steam supply system at the intersection of Riverside Drive and Grand Avenue, continuing west on Grand Avenue, to assure continued supply of steam to the entire west side of the University campus including UIHC.

Due to the 2008 flood, major portions of the steam tunnel system were forced to be shut down in a very short period of time once flooding occurred within the Power Plant. The resulting temperature changes created stresses and shifts in some of the steam line anchoring systems. Repairs to visible defects to the anchoring systems were made immediately following the flood. The combination of this period of stress and the 70 year age of the tunnels is believed to have created structural challenges within the section of tunnel included in this project. While temporary shoring has been installed, a permanent repair or replacement is needed.

The section of tunnel to be repaired / replaced by this project (see Attachment D) is located beneath a major arterial and highway road system which provides access to the UIHC Emergency Care Center. The design to re-establish a reliable steam supply route must take into account the considerable roadway traffic. The estimated cost of Phase 1 of the project is \$8 million to be funded with utility system revenue bonds and utility system renewal funds.

Upon discovery of the developing structural issues within the tunnel system, the University engaged the firm of Shive-Hattery to evaluate the condition of the tunnel and its systems. Following the evaluation, the firm provided immediate engineering services to temporarily repair and support the failing tunnel structure. Given the critical nature of the structural deficiencies and the importance of this section of the tunnel system to the west side of the campus and UIHC, and given the expedient timing needs for the delivery of this project, the University requests that it be given permission to negotiate for engineering services with Shive-Hattery, which will allow for immediate initiation of design.

The University requests approval of the schematic design and project description and budget (\$4,600,000) for the **UIHC Chronic Pain Clinic and Breast Imaging Center Relocations – 4 PFP** project, which would relocate two ambulatory clinical services, the Chronic Pain Clinic and the Breast Imaging Center, to level 4 of the Pomerantz Family Pavilion (PFP). The Chronic Pain Clinic, currently located on level 5 of the John Pappajohn Pavilion (JPP), would be relocated to free-up the space for development of four replacement inpatient operating rooms that would be constructed adjacent to the existing Main Operating Room Suite on level 5 of John Colloton Pavilion. The Breast Imaging Center, currently located on level 3 of JPP, would be relocated to accommodate development of a connecting walkway to UI Children's Hospital and to provide the Breast Imaging Center with the space for additional and new imaging technologies. These two clinical facilities would be operated independently but would share several staff support areas. The project would be funded with University Hospitals Building Usage Funds. The schematic design booklet is included with the Board's agenda materials.

The University requests approval of a revised project budget (\$2,700,000, an increase of \$200,000 funded by University Hospitals Building Usage Funds) for the **UIHC Waterproofing Beneath John Pappajohn Pavilion Exterior Courtyard** project which is repairing a deteriorated, below grade roof slab and membrane system that has resulted in the serious leaks of rain, water and snow melt into occupied patient care and support facilities beneath the

John Pappajohn Pavilion exterior playcourt. The project was initially bid in December 2012; the bids were rejected and the project rebid in February 2013, with a contract awarded to Jasper Construction Services, Inc. of Newton, IA in March 2013. Throughout construction there have been significant field conditions that have led to project delays and additional costs. The revised budget is needed to permit completion of the project.

**Details of the Projects:**

**College of Public Health Building – Fit Out Fifth Floor for Informatics**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Feb. 2014	Requested
Initial Review and Consideration of Capital Project Evaluation Criteria		Feb. 2014	Receive Report

At the heart of the major multidisciplinary initiative in informatics announced by the University in November 2013 is the creation of a new cluster of approximately 20 informatics faculty under the UI Cluster Hire Initiative. The ultimate goal of the initiative is to pull together faculty and staff to conduct leading-edge informatics research and discovery, and to partner with researchers and teachers across campus whose work depends on the creation, evaluation, and utilization of large amounts of digital information. Included would be various health science and clinical departments, physical and biological sciences, engineering, the social sciences and humanities. While the completed space would serve as the administrative and intellectual home of the initiative, research data storage and high-performance computing would be served by the Information Technology Facility on the Research Campus.

**Steam Utility Enterprise Systems - Replace Riverside Drive / Grand Avenue Steam Distribution System – Phase 1**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Feb. 2014	Requested
Selection of Design Professional Shive-Hattery (Iowa City)		Feb. 2014	Requested

For 70 years, the utility tunnel system beneath Grand Avenue has served as the primary connection from the Main Power Plant to the west side of the University campus, including the entire UIHC complex. This section of the utility distribution system will continue to serve this critical function; master planning for the campus and utility systems relies on maintaining this important route.

As utility infrastructure continues to age, major repair or replacement is inevitable. The University monitors the condition of its underground utility system and plans for major system repairs to correspond with other construction work in the vicinity. In this situation, the discovery of significant structural shifting made evident the need to take corrective actions immediately.

Several repair/replacement alternates are being explored for both Phase 1 and the subsequent phase. Issues to be addressed include the routing of the steam lines and how to replace the tunnel or make use of direct buried steam piping systems. With the challenges related to vehicular traffic at this location, the method by which the steam lines will be replaced will take into consideration several major factors. In the second phase of repair, westward on Grand Avenue, there may be options to complete the work with other utility work occurring in the area.

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**UIHC Chronic Pain Clinic and Breast Imaging Center Relocations – 4 PFP**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Oct. 2013	Approved
Initial Review and Consideration of Capital Project Evaluation Criteria		Oct. 2013	Received Report
Selection of Design Professional (Bergland & Cram Architects; Mason City)		Oct. 2013	Approved
Schematic Design		Feb. 2014	Requested
Project Description and Budget	\$4,600,000	Feb. 2014	Requested
Final Review and Consideration of Capital Project Evaluation Criteria		Feb. 2014	Receive Report

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The Chronic Pain Clinic is a multi-disciplinary, subspecialty clinic dedicated to the management of complex, chronic and cancer-related pain disorders. The Clinic has as its core objectives the development of individualized, comprehensive and state-of-the-art diagnostic plans followed by the implementation of multimodal treatment plans designed to reduce or eliminate the patient's pain and ameliorate his/her ability to perform activities of daily living. The Breast Imaging Center provides mammography, ultrasound and stereotactic breast biopsy services.

The following summarizes the spaces included in the program and schematic design:

<b><u>Chronic Pain Clinic</u></b>	<b><u>NASF*</u></b>
Patient Reception and Intake	1,285
Patient Care	4,230
Clinical Support	167
Staff Support	<u>962</u>
<b>Total – Chronic Pain Clinic</b>	<b>6,644</b>
<b><u>Breast Imaging Center</u></b>	
Patient Reception and Intake	1,179
Patient Care	2,130
Clinical Support	266
Staff Support	<u>269</u>
<b>Total – Breast Imaging Center</b>	<b>3,844</b>
<b>Shared Facilities</b>	735
<b>Grand Total</b>	<b>11,223</b>

\*NASF – Net assignable square feet

Project Budget

Construction	\$3,740,000
Planning, Design & Management	516,000
Contingency	<u>344,000</u>
<b>TOTAL</b>	<b><u>\$4,600,000</u></b>

Source of Funds: University Hospitals Building Usage Funds

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**UIHC Waterproofing Beneath John Pappajohn Pavilion Exterior Playcourt**

Project Summary

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		April 2012	Approved
Design Professional Agreement (Shive-Hattery, Iowa City)	\$ 185,000	Aug. 2012	Not Required*
Project Description and Budget	2,500,000	Oct. 2012	Approved
Reject Construction Bids		Jan. 2013	Not Required*
Rebid Contract Award (Jasper Construction Services; Newton)	1,948,000	Mar. 2013	Not Required*
Change Orders (to date)	257,934	various	Not Required**
Revised Project Description and Budget	2,700,000	Feb. 2014	Requested

\*Approved by Executive Director, consistent with Board policy

\*\*Approved by University, consistent with Board policy

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Work to be accomplished includes removal of the playground equipment and shade structures, excavation down to the top of the structural slab below, removal of the existing waterproofing membrane, reinforcement of the structural slab as needed, application of a new waterproofing system followed by the installation of walkways and repaired and/or new playground equipment and shade structures. This project would also include replacing all damaged ceiling tiles and light fixtures and patching and painting of walls, as needed, in the Orthopaedic Surgery Clinic and Rehabilitation Therapies facilities located directly below the defective roof slab and playcourt.

The bids for this project were first received on December 19, 2012, with base bids being 5.4% higher and the two bid alternates being 61% and 420% higher than estimated by the design professional. The higher bids were attributed to the original cost estimate not accurately accounting for the winter weather conditions that would exist when this exterior project would begin; bidders being overly cautious in pricing the infection control measures required for the interior work and the concealed, below grade vertical surfaces needing to be waterproofed; and, not having adequate time to price both bid alternates since they were issued by addendum.

UIHC requested that the bids be rejected and the project be rebid, with the contract documents to clarify the scope of work in the addenda. The project specifications were also modified to loosen restrictions on the type of excavation equipment that could be used for soil removal, and on its emissions; to add reinforcement to the waterproofing membrane at all bearing points where concrete is used to support fencing, canopies and playground equipment; to add a vapor barrier over the entire structural slab; to reduce some of the interior ceiling work; and, to add a preconstruction dewatering requirement.

The costs for the second set of bids, which were received on February 27, 2013, were not significantly different than those received during the first bid opening. It was decided to proceed with the award and make every attempt to complete the project within budget. Unfortunately, throughout construction significant field conditions were encountered that led to project delays and additional costs. These include the discovery of multiple buried utilities, such as lightning protection, playcourt lighting, storm drains, storm piping and drainage, miscellaneous power and control wire pathways and a 14" water main. These either had to be repaired, replaced, or relocated to allow the waterproofing and concrete paver installation to be completed. In addition, conflicts with existing fence footings necessitated their removal and replacement. This all required additional construction time and resulted in additional construction and project administration costs. The revised budget would allow for completion of the project.

	<u>Project Budget</u>	
	Budget <u>(Oct. 2012)</u>	Revised Budget <u>(Feb. 2014)</u>
Planning, Design & Management	\$ 300,000	\$ 340,000
Construction	2,000,000	2,360,000
Project Contingency	<u>100,000</u>	<u>0</u>
TOTAL	<u>\$2,500,000</u>	<u>\$2,700,000</u>
Source of Funds:		
University Hospitals Building Usage Funds	<u>\$2,500,000</u>	<u>\$2,700,000</u>
TOTAL	<u>\$2,500,000</u>	<u>\$2,700,000</u>

College of Public Health Building – Fit-out Fifth Floor for Informatics  
Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission / Strategic Plan: This project will provide the facilities required to support the University of Iowa's Informatics Initiative (UI<sup>3</sup>).

Informatics is a broad enabler of research, education and engagement, touching almost every area of the University of Iowa. The University has informatics-related educational and research activities distributed across several units. Select departments have core informatics research and teaching as their primary mission. Furthermore, several of the recent faculty cluster hires rely heavily on informatics (i.e., Aging Mind and Brain, Digital Public Humanities and Digital Arts, Genetics, and Water Sustainability). Recent investments in the Helium/Neon computer systems and expanded data storage are major steps forward. Given the universality of informatics needs, no single college or segment of the institution alone can create the breadth and depth of core and applied informatics that addresses all of the diverse needs.

An Informatics Task Force was organized in the spring of 2013 with the task of developing a comprehensive and cohesive action plan that strengthens informatics education, training, research and collaborative support at the University of Iowa. In response to the recommendations of the task force, the University announced a major multidisciplinary initiative in November 2013 designed to establish the university as a national center of excellence in the rapidly evolving field of informatics. At the heart of the initiative is the creation of a new "cluster" of approximately 20 informatics faculty under the UI Cluster Hire Initiative.

The ultimate goal of the initiative will be to pull together faculty and staff to conduct leading-edge informatics research and discovery, and also partner with researchers and teachers across campus whose work depends on the creation, evaluation, and utilization of large amounts of digital information. The initiative will include participation by three kinds of experts:

- core informatics faculty, with expertise in data analytics, hardware and software architecture and engineering, computer graphics and visualization, networks and sensors, and related areas;
- "bridge" faculty, or individuals who use informatics to advance their research and teaching in digital arts and humanities, bioinformatics, health information, public health, geoinformatics, business analytics, physical and social sciences, and many other fields; and
- partnership staff who have broad-based campus involvement in a number of research areas.

To be successful, it is necessary to establish physical space that can serve as an administrative and intellectual home. The space will serve as an ideal location for cross-

campus collaboration. Research data storage and high-performance computing will be served by the Information Technology Facility on the UI Research Campus. Additional dry lab space and computer facilities, visualization systems, and open space for experiments will be provided for faculty and staff engaged in the initiative.

Other Alternatives Explored: This initiative spans across campus and engages teaching, research and service elements. It is important that the space be central to faculty and students across campus. The space in the College of Public Health Building is ideal in that it is located centrally with easy access by health science, computer science and engineering researchers. The 5<sup>th</sup> floor space at the College of Public Health was shelled out at the time of construction and can easily be configured to meet the needs of the initiative.

Impact on Other Facilities and Square Footage: This project will not result in the abandonment, transfer or demolition of existing facilities.

Financial Resources for Construction Project: The project will be funded through Treasurer's Temporary Investment Income and sponsored research indirect cost recoveries.

Financial Resources for Operations and Maintenance: The source of funds to cover the associated operating and maintenance costs will be the General Education Fund, including indirect cost recoveries from sponsored research.

External Forces Justifying Approval: Informatics is a broad enabler of research, education and engagement, touching almost every area of the University of Iowa. The University has informatics-related educational and research activities distributed across several units. This project will establish physical space that can serve as an administrative and intellectual home and to serve as an ideal location for cross-campus collaboration.

Chronic Pain Clinic and Breast Imaging Center Relocations – 4 PFP  
Evaluation Criteria

Since the project meets the Board's definition of a major capital project, the University has provided the following information in response to the Board's evaluation criteria.

Institutional Mission / Strategic Plan: Completion of this project will contribute to UI Hospitals and Clinics' efforts in meeting all elements of the UI Health Care mission, "Changing Medicine, Changing Lives." It will greatly enhance the UI Hospitals' capabilities for delivering superb patient care, innovative educational programs and facilitating pioneering discoveries. The project is also supportive of each of the six major goals that have been established in UI Health Care's Strategic Plan for FY 2010-2013 by providing the facilities that are required to assist UI Health Care's efforts 1) to provide world class healthcare services to optimize health for everyone, 2) to advance world class discovery through excellence and innovation in biomedical and health services research, 3) to develop world class health professionals and scientists through excellent, innovative and humanistic educational curricula for learners at every stage, 4) to foster a culture of excellence that values, engages and enables our workforce, 5) to create an environment of inclusion where individual differences are respected and all feel welcome, and 6) to optimize a performance-driven business model that assures financial success.

Other Alternatives Explored: The possibility of using space north of the Main OR Suite was initially explored as a site for constructing additional OR's. It was determined that doing so would necessitate relocating some or all of the Clinical Pathology Laboratories now on the 5<sup>th</sup> Floor of the Roy Carver Pavilion (RCP). In addition, because the floor-to-floor space between the 5<sup>th</sup> and 6<sup>th</sup> levels of RCP is approximately two feet less than that within the Main OR Suite on level 5 JCP, it would be necessary to also relocate the clinical laboratories on level 6 to accommodate the mechanical equipment required to support the new operating rooms. It was ultimately determined that using any of the Carver Pavilion space would necessitate relocating all of the clinical laboratories. Due to the cost to do this and the lack of suitable space in which to accomplish it, this option was not pursued.

The area on level 5 JPP, directly south of the Main OR Suite, provides a more attractive alternative since the floor-to-floor height between levels 5 and 6 of JPP is the same as that in the Main OR Suite, thereby negating the need to encroach on the fully occupied level 6 to accommodate the mechanical equipment required to support the replacement operating rooms. In addition, there are several clinical and support services located on level 5 that can be more economically relocated, when necessary, to provide space for future growth of the Main OR Suite. For these reasons, the level 5 Pappajohn Pavilion area was determined optimal for development of the initial four replacement operating rooms, through the relocation of the Chronic Pain Clinic, and for the future development of additional operating rooms and other similar diagnostic and therapeutic facilities, as needed.

Impact on Other Facilities and Square Footage: This project will not result in the abandonment or demolition of existing facilities. As previously noted, replacement inpatient operating rooms will be developed in the existing Chronic Pain Clinic space and the space now occupied by the Breast Imaging Center will be reconfigured to support the level 3 connecting link between UIHC and the new UI Children's Hospital.

Financial Resources for Construction Project: The project will be funded with University Hospitals Building Usage Funds acquired from depreciation allowances of third parties underwriting the cost of patient care plus hospital net earnings from paying patients. No state capital appropriated dollars will be involved.

Financial Resources for Operations and Maintenance: The source of funds to cover the associated operating and maintenance costs will be hospital operating revenues derived from providing patient care services.

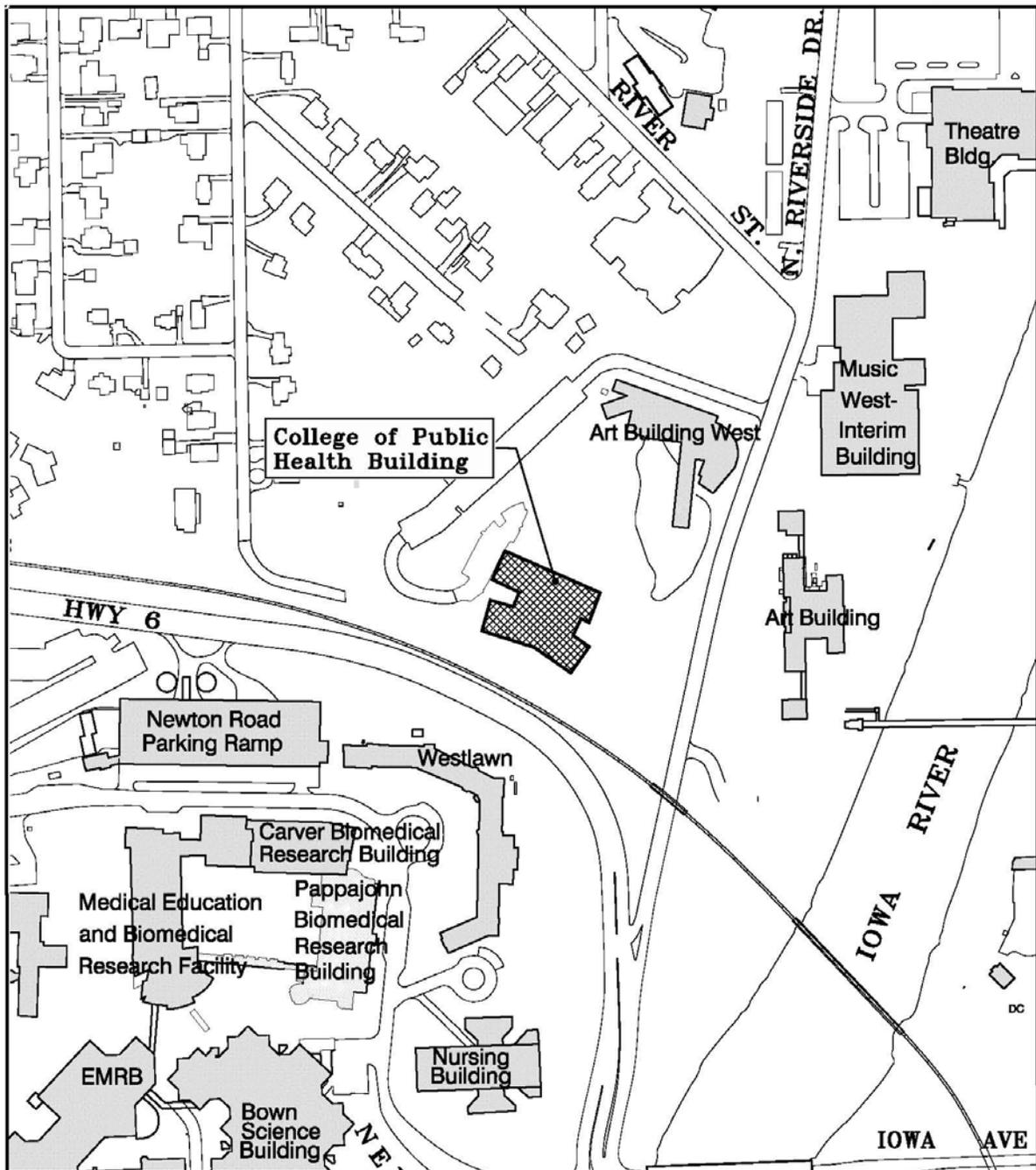
External Forces Justifying Approval: While the demand for surgical services at UIHC continues to increase, the age and condition of the oldest operating rooms in the Main OR Suite, those located in Main OR–East, necessitates taking them out of service as soon as it is practical. This can be accomplished once the four replacement operating rooms are completed, along with those to be developed in the new Children’s Hospital. These replacement and new operating rooms are necessary to meet current and future demand for contemporary surgical services.

Requirements for chronic pain services in Iowa are expected to increase 4% annually between 2012 and 2017. The UIHC Chronic Pain Clinic has seen volumes increase an average of 9% per year over the last two years. Recent pain clinic closures in Iowa have resulted in decreased overall capacity and an increase in patient referrals from throughout UIHC’s service area. Increased industry and federal scrutiny of pain medicine and the over-prescription of opioid medications have resulted in an increase in volume to tertiary pain medicine programs that have the required expertise to care for these patients. The new clinical space will be designed to provide an environment conducive for all levels of pain intervention and will accommodate the anticipated future growth in patient volume.

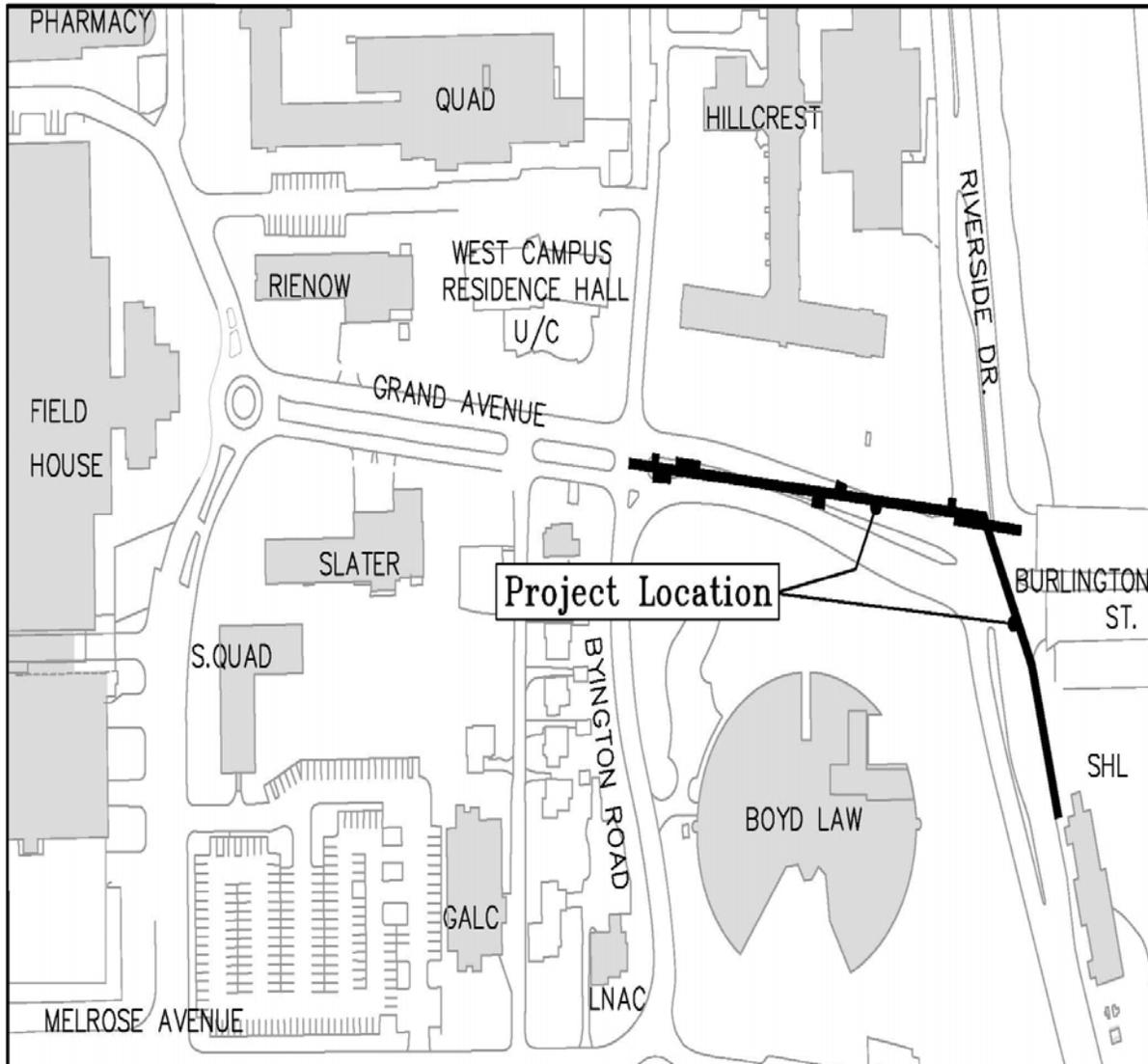
With population health and management at the center of future healthcare reform, preventive and screening services take on a pivotal role in identifying at-risk patients. Providing convenient access to these screening services, such as mammograms, is a key strategy to keeping patients healthy and providing necessary medical interventions as early as possible. Reports from the CDC and Iowa Department of Public Health indicate that only approximately 75% of women self-report that they are compliant with the recommended bi-annual breast cancer screening recommendations. Rates are substantially lower for women who say that they don’t have a primary care provider or don’t have health insurance. The Accountable Care Act (ACA) will influence all three of these factors by increasing the number of insured patients and providing incentives to primary care providers to perform preventive care and screening. Though the full impact of the ACA has yet to be seen, the UIHC Breast Imaging Center has experienced an average growth of 3.3% in patient visits over the past three years, and it is anticipated the annual rate of growth will continue to increase. This growth rate exceeds the estimated market growth rate of 1% per year.

The project’s design will meet all building codes and standards, as well as the most recently published 2010 Edition of the Guidelines for Design and Construction of Hospital and Healthcare Facilities, published by the Facility Guidelines Institute. These guidelines regulate hospital

licensing and construction in Iowa and most other states and are used by Medicare and the Joint Commission to develop new regulations and standards. The design will also meet Health Insurance Portability and Accountability Act (HIPAA) requirements for patient privacy and confidentiality.



<p><b>THE UNIVERSITY OF IOWA</b></p>  <p>Project # 0519101 3-Exhibits\BOR\ COPH-Floor5.dwg Plotted: December 9, 2013</p>	<p>N</p>  <p>Scale: 1" = 250'</p>	<p><b>Location Map</b></p> <p><b>College of Public Health Building - Fit out Fifth Floor for Informatics</b></p>
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**THE UNIVERSITY OF IOWA**  
Project # 0513801  
GrandAveTunnel-C.dwg  
Plotted: Dec. 26, 2013

Location Map:  
Steam Utility Enterprise Systems  
Replace Riverside Drive/Grand Avenue  
Steam Distribution System-Phase 1



N  
Scale: 1" = 150'